

Amendments to the Claims

The following listing of claims replaces all prior versions of the claims and all prior listings of the claims in the present application.

1-26. (canceled)

27. (currently amended) A method of making a tire, the tire comprising a carcass structure and at least one circumferentially inextensible annular structure, comprising:

forming at least one [[first]] carcass ply of the carcass structure;

forming the at least one annular structure; and

applying the at least one annular structure to a region close to inner circumferential edges of the at least one [[first]] carcass ply;

wherein forming ~~the at least one first~~ each carcass ply comprises:

preparing [[first]] strip lengths, each [[first]] strip length comprising longitudinal

and parallel thread elements at least partly coated with at least one layer of raw elastomer material; and

depositing the [[first]] strip lengths onto a toroidal support in a substantially U-

shaped conformation about a profile in transverse section of the toroidal support ~~to define~~;

wherein each strip length comprises:

two side portions that substantially extend in planes orthogonal to a geometric axis of rotation of the toroidal support at mutually-spaced-apart positions in an axial direction;

a crown portion that extends at a radially outer position in a plane substantially parallel to the geometric axis of rotation of the toroidal support; and
two mutually-axially-spaced-apart transition regions that are defined between the side portions and the crown portion, respectively;

wherein the crown portions of the [[first]] strip lengths are disposed consecutively in side-by-side relationship along a circumferential extension of the toroidal support,

wherein edges of circumferentially consecutive [[first]] strip lengths abut ~~evenly~~ uniformly along their entire crown portions extending between the transition regions,

wherein the side portions of each [[first]] strip length cover in part or are partly covered by a side portion of at least one circumferentially consecutive [[first]] strip length,

wherein forming the at least one annular structure comprises depositing at least one first elongated element in substantially concentric coils to form a first circumferentially inextensible annular insert, substantially in a form of an annulus, and

wherein the respective side portions of the [[first]] strip lengths are not turned up around the first annular insert.

28. (currently amended) The method of claim 27, wherein the [[first]] strip lengths are prepared by cutting actions executed sequentially on at least one continuous strip element incorporating the thread elements in the at least one layer of raw elastomer material.

29. (currently amended) The method of claim 28, wherein each cutting action is followed by deposition of an individual [[first]] strip length thus obtained onto the toroidal support.

30. (currently amended) The method of claim 27, wherein the side portions of circumferentially consecutive [[first]] strip lengths on the toroidal support converge toward the geometric axis of rotation of the toroidal support.

31. (currently amended) The method of claim 27, wherein an amount of coverage of the side portions of the [[first]] strip lengths progressively decreases, starting from a maximum value at radially inner ends of the side portions until a zero value at the transition regions.

32. (currently amended) The method of claim 27, wherein the [[first]] strip lengths are sequentially deposited onto the toroidal support according to a circumferential distribution pitch corresponding to a width of the [[first]] strip lengths.

33. (currently amended) The method of claim 27, wherein the [[first]] strip lengths are sequentially deposited onto the toroidal support according to a circumferential distribution pitch corresponding to a multiple of a width of the [[first]] strip lengths.

34. (currently amended) The method of claim 27, wherein the [[first]] strip lengths have a width corresponding to a submultiple of a circumferential extension of the toroidal support, as measured at an equatorial plane of the toroidal support.

35. (currently amended) The method of claim 27, further comprising:
sequentially pressing the side portions of each [[first]] strip length to define regions of increased width close to inner circumferential edges of the carcass structure.

36. (currently amended) The method of claim 35, wherein the [[first]] strip lengths are prepared by cutting actions executed sequentially on at least one continuous strip element incorporating the thread elements in the at least one layer of raw elastomer material, and wherein sequentially pressing the side portions is carried out on the at least one continuous strip element before execution of corresponding cutting actions.

37. (currently amended) The method of claim 35, further comprising:
moving the thread elements in the [[first]] strip lengths apart from each other concurrently with sequentially pressing the side portions.

38. (currently amended) The method of claim 27, wherein during depositing the [[first]] strip lengths, at least one of the [[first]] strip lengths is held on the toroidal support by a suction action produced through the toroidal support.

39. (currently amended) The method of claim 27, wherein depositing the [[first]] strip lengths comprises:

laying down each [[first]] strip length transversely and at a centered position relative to an equatorial plane of the toroidal support;

radially moving each [[first]] strip length close to the toroidal support so as to form the crown portions of the [[first]] strip lengths on the toroidal support;

translating opposite ends of each [[first]] strip length substantially radially close to the geometric axis of rotation of the toroidal support for applying the side portions of the [[first]] strip lengths to the toroidal support; and

rotating the toroidal support through an angular pitch corresponding to a circumferential distribution pitch of the [[first]] strip lengths.

40. (currently amended) The method of claim 27, further comprising:

pressing the side portions of the [[first]] strip lengths against side walls of the toroidal support.

41. (currently amended) The method of claim 27, ~~further comprising~~ wherein forming the at least one carcass ply comprises:

forming at least one first carcass ply; and

forming at least one second carcass ply superposed on the at least one first carcass ply.

42. (currently amended) The method of claim 41, wherein ~~forming~~ the thread elements
of the at least one second carcass ply ~~comprises:~~

~~preparing second strip lengths, each second strip length comprising longitudinal and
parallel thread elements at least partly coated with at least one layer of raw elastomer material;
and~~

~~depositing the second strip lengths onto the toroidal support in a substantially U-shaped
conformation about the profile in transverse section of the toroidal support to define two side
portions, the side portions substantially extending in planes orthogonal to the geometric axis of
rotation of the toroidal support at mutually spaced apart positions in the axial direction, and a
crown portion extending at a radially outer position between the side portions;~~

~~wherein the crown portions of each second strip length are disposed consecutively in
side by side relationship along the circumferential extension of the toroidal support, and~~

~~wherein the side portions of each second strip length cover in part or are partly covered
by a side portion of at least one circumferentially consecutive second strip length~~ are disposed
according to a crossed orientation relative to the thread elements of the at least one first carcass
ply.

43. (currently amended) The method of claim 27, further comprising:

coating the toroidal support with at least one sealing layer or liner made of an elastomer
material impervious to air prior to forming the at least one ~~[[first]] carcass ply of the carcass
structure.~~

44. (previously presented) The method of claim 43, wherein coating the toroidal support is carried out by winding at least one ribbon band of an air-proof elastomer material in coils disposed side-by-side along the profile in transverse section of the toroidal support.

45. (previously presented) The method of claim 27, further comprising:
disengaging the tire from the toroidal support;
introducing an air tube into the carcass structure; and
vulcanizing the tire.

46. (previously presented) The method of claim 27, further comprising:
vulcanizing the tire; and
stretching the carcass structure during vulcanizing to achieve an expansion of the tire of a linear amount between 2% and 5%.

47. (previously presented) The method of claim 27, further comprising:
depositing at least one second elongated element in substantially concentric coils to form a second circumferentially inextensible annular insert substantially in a form of an annulus disposed concentrically in a side-by-side relationship relative to the first annular insert; and
forming at least one filling body of raw elastomer material interposed between the at least one first elongated element and the at least one second elongated element.

48. (previously presented) The method of claim 47, wherein the at least one first elongated element and the at least one second elongated element are deposited into a molding cavity, and

wherein the at least one filling body is formed in the molding cavity.

49. (currently amended) The method of claim 47, wherein at least one of the substantially concentric coils of the first annular insert, the second annular insert, or the first and second annular inserts is defined by a continuous spiral of one or more elongated elements.

50. (currently amended) The method of claim 47, wherein at least one of the substantially concentric coils of the first annular insert, the second annular insert, or the first and second annular inserts is defined by concentric rings of one or more elongated elements.

51. (previously presented) The method of claim 48, wherein the at least one filling body is formed in the molding cavity by:

interposing at least one annular element of raw elastomer material of predetermined volume between the first and second annular inserts; and

reducing a volume of the molding cavity to compress and deform the at least one annular element until the at least one annular element, the at least one first elongated element, and the at least one second elongated element fill the molding cavity.

52. (previously presented) The method of claim 48, wherein the at least one filling body is formed in the molding cavity by injecting raw elastomer material between the first and second annular inserts.

53. (currently amended) The method of claim 47, wherein each annular structure is interposed between [[the]] at least one first carcass ply and a second carcass ply superposed on the at least one first carcass ply.

54. (previously presented) The method of claim 47, further comprising:
coating one or more of the at least one first and second elongated elements with at least one layer of raw elastomer material;
wherein each coated elongated element is coated prior to depositing the coated elongated element.

55. (previously presented) The method of claim 48, further comprising:
magnetically retaining at least one of the first and second annular inserts at a predetermined position within the molding cavity.

56. (currently amended) A method of making a tire, the tire comprising a carcass structure and at least one circumferentially inextensible annular structure, comprising:
forming at least one [[first]] carcass ply of the carcass structure;
forming the at least one annular structure; and

applying the at least one annular structure to a region close to inner circumferential edges of the at least one [[first]] carcass ply;

wherein forming ~~the at least one first~~ each carcass ply comprises:

preparing [[first]] strip lengths, each [[first]] strip length comprising longitudinal and parallel thread elements at least partly coated with at least one layer of raw elastomer material; and

depositing the [[first]] strip lengths onto a toroidal support in a substantially U-shaped conformation about a profile in transverse section of the toroidal support ~~to define~~;

wherein each strip length comprises:

two side portions that substantially extend in planes orthogonal to a geometric axis of rotation of the toroidal support at mutually-spaced-apart positions in an axial direction;

a crown portion that extends at a radially outer position in a plane substantially parallel to the geometric axis of rotation of the toroidal support; and

two mutually-axially-spaced-apart transition regions that are defined between the side portions and the crown portion, respectively;

wherein the crown portions of the [[first]] strip lengths are disposed consecutively in side-by-side relationship along a circumferential extension of the toroidal support,

wherein edges of circumferentially consecutive [[first]] strip lengths abut ~~evenly~~ uniformly along their entire crown portions extending between the transition regions,

wherein the side portions of each [[first]] strip length cover in part or are partly covered by a side portion of at least one circumferentially consecutive [[first]] strip length,

wherein forming the at least one annular structure comprises depositing at least one first elongated element in substantially concentric coils to form a first circumferentially inextensible annular insert, substantially in a form of an annulus,

wherein the side portions of the [[first]] strip lengths are not turned up around the first annular insert, and

wherein the carcass structure does not comprise flippers wound about the at least one annular structure.

57. (currently amended) The method of claim 56, wherein the [[first]] strip lengths are prepared by cutting actions executed sequentially on at least one continuous strip element incorporating the thread elements in the at least one layer of raw elastomer material.

58. (currently amended) The method of claim 57, wherein each cutting action is followed by deposition of an individual [[first]] strip length thus obtained onto the toroidal support.

59. (currently amended) The method of claim 56, wherein the side portions of circumferentially consecutive [[first]] strip lengths on the toroidal support converge toward the geometric axis of rotation of the toroidal support.

60. (currently amended) The method of claim 56, wherein an amount of coverage of the side portions of the [[first]] strip lengths progressively decreases, starting from a maximum value at radially inner ends of the side portions until a zero value at the transition regions.

61. (currently amended) The method of claim 56, wherein the [[first]] strip lengths are sequentially deposited onto the toroidal support according to a circumferential distribution pitch corresponding to a width of the [[first]] strip lengths.

62. (currently amended) The method of claim 56, wherein the [[first]] strip lengths are sequentially deposited onto the toroidal support according to a circumferential distribution pitch corresponding to a multiple of a width of the [[first]] strip lengths.

63. (currently amended) The method of claim 56, wherein the [[first]] strip lengths have a width corresponding to a submultiple of a circumferential extension of the toroidal support, as measured at an equatorial plane of the toroidal support.

64. (currently amended) The method of claim 56, further comprising:
sequentially pressing the side portions of each [[first]] strip length to define regions of increased width close to inner circumferential edges of the carcass structure.

65. (currently amended) The method of claim 64, wherein the [[first]] strip lengths are prepared by cutting actions executed sequentially on at least one continuous strip element incorporating the thread elements in the at least one layer of raw elastomer material, and wherein sequentially pressing the side portions is carried out on the at least one continuous strip element before execution of corresponding cutting actions.

66. (currently amended) The method of claim 64, further comprising:
moving the thread elements in the [[first]] strip lengths apart from each other concurrently with sequentially pressing the side portions.

67. (currently amended) The method of claim 56, wherein during depositing the [[first]] strip lengths, at least one of the [[first]] strip lengths is held on the toroidal support by a suction action produced through the toroidal support.

68. (currently amended) The method of claim 56, wherein depositing the [[first]] strip lengths comprises:

laying down each [[first]] strip length transversely and at a centered position relative to an equatorial plane of the toroidal support;

radially moving each [[first]] strip length close to the toroidal support to form the crown portions of the [[first]] strip lengths on the toroidal support;

translating opposite ends of each [[first]] strip length substantially radially close to the geometric axis of rotation of the toroidal support for applying the side portions of the [[first]] strip lengths to the toroidal support; and

rotating the toroidal support through an angular pitch corresponding to a circumferential distribution pitch of the [[first]] strip lengths.

69. (currently amended) The method of claim 56, further comprising:

pressing the side portions of the [[first]] strip lengths against side walls of the toroidal support.

70. (currently amended) The method of claim 56, ~~further comprising~~ wherein forming the at least one carcass ply comprises:

forming at least one first carcass ply; and

forming at least one second carcass ply superposed on the at least one first carcass ply.

71. (currently amended) The method of claim 70, wherein ~~forming the~~ thread elements of the at least one second carcass ply comprises:

~~preparing second strip lengths, each second strip length comprising longitudinal and parallel thread elements at least partly coated with at least one layer of raw elastomer material; and~~

~~depositing the second strip lengths onto the toroidal support in a substantially U-shaped conformation about the profile in transverse section of the toroidal support to define two side~~

~~portions, the side portions substantially extending in planes orthogonal to the geometric axis of rotation of the toroidal support at mutually spaced apart positions in the axial direction, and a crown portion extending at a radially outer position between the side portions;~~

~~wherein the crown portions of each second strip length are disposed consecutively in side-by-side relationship along the circumferential extension of the toroidal support, and~~

~~wherein the side portions of each second strip length cover in part or are partly covered by a side portion of at least one circumferentially consecutive second strip length are disposed according to a crossed orientation relative to the thread elements of the at least one first carcass ply.~~

72. (currently amended) The method of claim 56, further comprising:

coating the toroidal support with at least one sealing layer or liner made of an elastomer material impervious to air prior to forming the at least one [[first]] carcass ply ~~of the carcass structure.~~

73. (previously presented) The method of claim 72, wherein coating the toroidal support is carried out by winding at least one ribbon band of an air-proof elastomer material in coils disposed side-by-side along the profile in transverse section of the toroidal support.

74. (previously presented) The method of claim 56, further comprising:

disengaging the tire from the toroidal support;

introducing an air tube into the carcass structure; and

vulcanizing the tire.

75. (previously presented) The method of claim 56, further comprising:

vulcanizing the tire; and

stretching the carcass structure during vulcanizing to achieve an expansion of the tire of a linear amount between 2% and 5%.

76. (previously presented) The method of claim 56, further comprising:

depositing at least one second elongated element in substantially concentric coils to form a second circumferentially inextensible annular insert substantially in a form of an annulus disposed concentrically in a side-by-side relationship relative to the first annular insert; and

forming at least one filling body of raw elastomer material interposed between the at least one first elongated element and the at least one second elongated element.

77. (previously presented) The method of claim 76, wherein the at least one first elongated element and the at least one second elongated element are deposited into a molding cavity, and

wherein the at least one filling body is formed in the molding cavity.

78. (currently amended) The method of claim 76, wherein at least one of the substantially concentric coils of the first annular insert, the second annular insert, or the first and second annular inserts is defined by a continuous spiral of one or more elongated elements.

79. (currently amended) The method of claim 76, wherein at least one of the substantially concentric coils of the first annular insert, the second annular insert, or the first and second annular inserts is defined by concentric rings of one or more elongated elements.

80. (previously presented) The method of claim 77, wherein the at least one filling body is formed in the molding cavity by:

interposing at least one annular element of raw elastomer material of predetermined volume between the first and second annular inserts; and

reducing a volume of the molding cavity to compress and deform the at least one annular element until the at least one annular element, the at least one first elongated element, and the at least one second elongated element fill the molding cavity.

81. (previously presented) The method of claim 77, wherein the at least one filling body is formed in the molding cavity by injecting raw elastomer material between the first and second annular inserts.

82. (currently amended) The method of claim 76, wherein each annular structure is interposed between [[the]] at least one first carcass ply and a second carcass ply superposed on the at least one first carcass ply.

83. (previously presented) The method of claim 76, further comprising:

coating one or more of the at least one first and second elongated elements with at least one layer of raw elastomer material;

wherein each coated elongated element is coated prior to depositing the coated elongated element.

84. (previously presented) The method of claim 77, further comprising:
magnetically retaining at least one of the first and second annular inserts at a predetermined position within the molding cavity.

85. (currently amended) A method of making a tire, the tire comprising a carcass structure and at least one circumferentially inextensible annular structure, comprising:
forming at least one [[first]] carcass ply of the carcass structure;
forming the at least one annular structure; and
applying the at least one annular structure to a region close to inner circumferential edges of the at least one [[first]] carcass ply;

wherein forming ~~the at least one first~~ each carcass ply comprises:

preparing [[first]] strip lengths, each [[first]] strip length comprising longitudinal and parallel thread elements at least partly coated with at least one layer of raw elastomer material; and
depositing the [[first]] strip lengths onto a toroidal support in a substantially U-shaped conformation about a profile in transverse section of the toroidal support ~~to define~~;

wherein each strip length comprises:

two side portions that substantially extend in planes orthogonal to a geometric axis of rotation of the toroidal support at mutually-spaced-apart positions in an axial direction;

a crown portion that extends at a radially outer position in a plane substantially parallel to the geometric axis of rotation of the toroidal support; and

two mutually-axially-spaced-apart transition regions that are defined between the side portions and the crown portion, respectively;

wherein the crown portions of the [[first]] strip lengths are disposed consecutively in side-by-side relationship along a circumferential extension of the toroidal support,

wherein edges of circumferentially consecutive [[first]] strip lengths abut ~~evenly~~ uniformly along their entire crown portions extending between the transition regions,

wherein the side portions of each [[first]] strip length cover in part or are partly covered by a side portion of at least one circumferentially consecutive [[first]] strip length,

wherein forming the at least one annular structure comprises depositing at least one first elongated element in substantially concentric coils to form a first circumferentially inextensible annular insert, substantially in a form of an annulus, and

wherein the first annular insert comprises a radially elongated cross-sectional profile.

86. (currently amended) A method of making a tire, the tire comprising a carcass structure and at least one circumferentially inextensible annular structure, comprising:

forming at least one [[first]] carcass ply of the carcass structure;

forming the at least one annular structure; and
applying the at least one annular structure to a region close to inner circumferential edges
of the at least one [[first]] carcass ply;

wherein forming ~~the at least one first~~ each carcass ply comprises:

preparing [[first]] strip lengths, each [[first]] strip length comprising longitudinal
and parallel thread elements at least partly coated with at least one layer of
raw elastomer material; and

depositing the [[first]] strip lengths onto a toroidal support in a substantially U-
shaped conformation about a profile in transverse section of the toroidal
support ~~to define~~;

wherein each strip length comprises:

two side portions that substantially extend in planes orthogonal to a geometric
axis of rotation of the toroidal support at mutually-spaced-apart positions
in an axial direction;

a crown portion that extends at a radially outer position in a plane substantially
parallel to the geometric axis of rotation of the toroidal support; and

two mutually-axially-spaced-apart transition regions that are defined between the
side portions and the crown portion, respectively;

wherein the crown portions of the [[first]] strip lengths are disposed consecutively in
side-by-side relationship along a circumferential extension of the toroidal support,

wherein edges of circumferentially consecutive [[first]] strip lengths abut ~~evenly~~
uniformly along their entire crown portions extending between the transition regions,

wherein the side portions of each [[first]] strip length cover in part or are partly covered by a side portion of at least one circumferentially consecutive [[first]] strip length,

wherein forming the at least one annular structure comprises depositing at least one first elongated element in substantially concentric coils to form a first circumferentially inextensible annular insert, substantially in a form of an annulus, and

wherein the substantially concentric coils are disposed in mutual side-by-side relationship according to circumferences of increasingly growing diameter about a geometric winding axis of the substantially concentric coils.

87. (currently amended) A method of making a tire, the tire comprising a carcass structure and at least one circumferentially inextensible annular structure, comprising:

forming at least one [[first]] carcass ply of the carcass structure;

forming the at least one annular structure; and

applying the at least one annular structure to a region close to inner circumferential edges of the at least one [[first]] carcass ply;

wherein forming ~~the at least one first~~ each carcass ply comprises:

preparing [[first]] strip lengths, each [[first]] strip length comprising longitudinal and parallel thread elements at least partly coated with at least one layer of raw elastomer material; and

depositing the [[first]] strip lengths onto a toroidal support in a substantially U-shaped conformation about a profile in transverse section of the toroidal support ~~to define~~;

wherein each strip length comprises:

two side portions that substantially extend in planes orthogonal to a geometric axis of rotation of the toroidal support at mutually-spaced-apart positions in an axial direction;

a crown portion that extends at a radially outer position in a plane substantially parallel to the geometric axis of rotation of the toroidal support; and
two mutually-axially-spaced-apart transition regions that are defined between the side portions and the crown portion, respectively;

wherein the crown portions of the [[first]] strip lengths are disposed consecutively in side-by-side relationship along a circumferential extension of the toroidal support,

wherein edges of circumferentially consecutive [[first]] strip lengths abut ~~evenly~~ uniformly along their entire crown portions extending between the transition regions,

wherein the side portions of each [[first]] strip length cover in part or are partly covered by a side portion of at least one circumferentially consecutive [[first]] strip length,

wherein forming the at least one annular structure comprises depositing at least one first elongated element in substantially concentric coils to form a first circumferentially inextensible annular insert, substantially in a form of an annulus,

wherein the carcass structure does not comprise flippers wound about the at least one annular structure, and

wherein the first annular insert comprises a radially elongated cross-sectional profile.

88. (currently amended) A method of making a tire, the tire comprising a carcass structure and at least one circumferentially inextensible annular structure, comprising:
forming at least one [[first]] carcass ply of the carcass structure;
forming the at least one annular structure; and
applying the at least one annular structure to a region close to inner circumferential edges of the at least one [[first]] carcass ply;

wherein forming ~~the at least one first~~ each carcass ply comprises:

preparing [[first]] strip lengths, each [[first]] strip length comprising longitudinal and parallel thread elements at least partly coated with at least one layer of raw elastomer material; and
depositing the [[first]] strip lengths onto a toroidal support in a substantially U-shaped conformation about a profile in transverse section of the toroidal support ~~to define~~;

wherein each strip length comprises:

two side portions that substantially extend in planes orthogonal to a geometric axis of rotation of the toroidal support at mutually-spaced-apart positions in an axial direction;
a crown portion that extends at a radially outer position in a plane substantially parallel to the geometric axis of rotation of the toroidal support; and
two mutually-axially-spaced-apart transition regions that are defined between the side portions and the crown portion, respectively;

wherein the crown portions of the [[first]] strip lengths are disposed consecutively in side-by-side relationship along a circumferential extension of the toroidal support,

wherein edges of circumferentially consecutive [[first]] strip lengths abut ~~evenly~~ uniformly along their entire crown portions extending between the transition regions,

wherein the side portions of each [[first]] strip length cover in part or are partly covered by a side portion of at least one circumferentially consecutive [[first]] strip length,

wherein forming the at least one annular structure comprises depositing at least one first elongated element in substantially concentric coils to form a first circumferentially inextensible annular insert, substantially in a form of an annulus,

wherein the carcass structure does not comprise flippers wound about the at least one annular structure, and

wherein the substantially concentric coils are disposed in mutual side-by-side relationship according to circumferences of increasingly growing diameter about a geometric winding axis of the substantially concentric coils.

89. (currently amended) A method of making a tire, the tire comprising a carcass structure and at least one circumferentially inextensible annular structure, comprising:

forming at least one [[first]] carcass ply of the carcass structure;

forming the at least one annular structure; and

applying the at least one annular structure to a region close to inner circumferential edges of the at least one [[first]] carcass ply;

wherein forming ~~the at least one first~~ each carcass ply comprises:

preparing [[first]] strip lengths, each [[first]] strip length comprising longitudinal and parallel thread elements at least partly coated with at least one layer of raw elastomer material; and
depositing the [[first]] strip lengths onto a toroidal support in a substantially U-shaped conformation about a profile in transverse section of the toroidal support to define;

wherein each strip length comprises:

two side portions that substantially extend in planes orthogonal to a geometric axis of rotation of the toroidal support at mutually-spaced-apart positions in an axial direction;
a crown portion that extends at a radially outer position in a plane substantially parallel to the geometric axis of rotation of the toroidal support; and
two mutually-axially-spaced-apart transition regions that are defined between the side portions and the crown portion, respectively;

wherein the crown portions of the [[first]] strip lengths are disposed consecutively in side-by-side relationship along a circumferential extension of the toroidal support,

wherein edges of circumferentially consecutive [[first]] strip lengths abut ~~evenly~~ uniformly along their entire crown portions extending between the transition regions,

wherein the side portions of each [[first]] strip length cover in part or are partly covered by a side portion of at least one circumferentially consecutive [[first]] strip length,

wherein forming the at least one annular structure comprises depositing at least one first elongated element in substantially concentric coils to form a first circumferentially inextensible annular insert, substantially in a form of an annulus,

wherein the side portions of the [[first]] strip lengths are not turned up around the first annular insert, and

wherein the first annular insert comprises a radially elongated cross-sectional profile.

90. (currently amended) A method of making a tire, the tire comprising a carcass structure and at least one circumferentially inextensible annular structure, comprising:

forming at least one [[first]] carcass ply of the carcass structure;

forming the at least one annular structure; and

applying the at least one annular structure to a region close to inner circumferential edges of the at least one [[first]] carcass ply;

wherein forming ~~the at least one first~~ each carcass ply comprises:

preparing [[first]] strip lengths, each [[first]] strip length comprising longitudinal and parallel thread elements at least partly coated with at least one layer of raw elastomer material; and

depositing the [[first]] strip lengths onto a toroidal support in a substantially U-shaped conformation about a profile in transverse section of the toroidal support ~~to define~~;

wherein each strip length comprises:

two side portions that substantially extend in planes orthogonal to a geometric axis of rotation of the toroidal support at mutually-spaced-apart positions in an axial direction;

a crown portion that extends at a radially outer position in a plane substantially parallel to the geometric axis of rotation of the toroidal support; and
two mutually-axially-spaced-apart transition regions that are defined between the side portions and the crown portion, respectively;

wherein the crown portions of the [[first]] strip lengths are disposed consecutively in side-by-side relationship along a circumferential extension of the toroidal support,

wherein edges of circumferentially consecutive [[first]] strip lengths abut ~~evenly~~ uniformly along their entire crown portions extending between the transition regions,

wherein the side portions of each [[first]] strip length cover in part or are partly covered by a side portion of at least one circumferentially consecutive [[first]] strip length,

wherein forming the at least one annular structure comprises depositing at least one first elongated element in substantially concentric coils to form a first circumferentially inextensible annular insert, substantially in a form of an annulus,

wherein the side portions of the [[first]] strip lengths are not turned up around the first annular insert, and

wherein the substantially concentric coils are disposed in mutual side-by-side relationship according to circumferences of increasingly growing diameter about a geometric winding axis of the substantially concentric coils.

91. (new) A method of making a tire, the tire comprising a carcass structure and at least one circumferentially inextensible annular structure, comprising:

forming at least one carcass ply of the carcass structure;

forming the at least one annular structure; and

applying the at least one annular structure to a region close to inner circumferential edges of the at least one carcass ply;

wherein forming each carcass ply comprises:

preparing strip lengths, each strip length comprising longitudinal and parallel thread elements at least partly coated with at least one layer of raw elastomer material;

depositing one of the strip lengths onto a toroidal support; and

depositing further strip lengths onto the toroidal support;

wherein each of the further strip lengths is deposited in a circumferential side-by-side relationship with a previously deposited strip length,

wherein each of the strip lengths is deposited in a substantially U-shaped conformation about a profile in transverse section of the toroidal support,

wherein each strip length comprises:

two side portions that substantially extend in planes orthogonal to a geometric axis of rotation of the toroidal support at mutually-spaced-apart positions in an axial direction;

a crown portion that extends at a radially outer position in a plane substantially parallel to the geometric axis of rotation of the toroidal support; and

two mutually-axially-spaced-apart transition regions that are defined between the
side portions and the crown portion, respectively;

wherein the crown portions of the strip lengths are disposed consecutively in side-by-side
relationship along a circumferential extension of the toroidal support,

wherein edges of circumferentially consecutive strip lengths abut uniformly along their
entire crown portions extending between the transition regions,

wherein the side portions of each strip length cover in part or are partly covered by a side
portion of at least one circumferentially consecutive strip length,

wherein forming the at least one annular structure comprises depositing at least one first
elongated element in substantially concentric coils to form a first circumferentially inextensible
annular insert, substantially in a form of an annulus, and

wherein the respective side portions of the strip lengths are not turned up around the first
annular insert.